

Book Reviews

Chemistry of organic fluorine compounds II: A critical review. ed. M. Hudlicky & A. E. Pavlath, American Chemical Society, Washington DC, 1995, xxi + 1296 pp., price US\$169.95.
ISBN 0-8412-2515-X

To anyone in the field the name Hudlicky is synonymous with the bible of the organofluorine chemist, *The Chemistry of Organic Fluorine Compounds*, published in 1972. That book contained over 900 pages, and covered the literature up to 1971. There was a second edition in 1976, which was reprinted though not updated, in 1992. Now Milos Hudlicky has topped his first book, in collaboration with Attila Pavlath, with a mammoth 1296-page successor. This book is an update, covering the literature from 1972 to 1991.

Such a big effort needed help, and this time the book is the product of 44 contributors, with Hudlicky and Pavlath as the editors, and authors of three chapters. The range of topics is similar, starting with a very useful chapter surveying the literature with references to over 160 monographs and key references and reviews, followed by a short chapter surveying fluorinating agents. The body of the book is then taken up with two main sections, each one split into short chapters written by the various contributors. The first main section, on methods of introducing fluorine into organic molecules, contains 11 chapters, with topics such as addition of fluorine, and electrophilic fluorination. The second main section, on reactions of organic fluorine compounds, contains 23 chapters on topics such as reduction, oxidation or arylation. There are then four shorter chapters on the properties, analysis and applications of fluorinated compounds, and their use as reagents.

Since the original edition there has been a huge increase in literature on fluorine chemistry, and the new edition has taken this into account. For example the reactions of fluoro-organometallic derivatives, which occupied 54 pages in the first edition, have now expanded to 83 pages. Similarly, methods for introducing fluorine into molecules occupied 124 pages in the first edition, but take up 230 in the new edition. It is not easy to assess how well such a large volume has dealt with this increased literature, but the coverage of the chapters does seem to be very thorough, and they have

been written so that reference does not have to made back to the first edition. Another difference is that the first edition was titled as a laboratory manual, with 54 pages detailing 205 experimental procedures. The new version contains only 18 experimental procedures, of new reactions from the intervening period.

The book is copiously referenced, and a nice touch is that at the bottom of each page is given the page number locating the references on that page. However, a minor irritation with the layout is that the page headings refer to main sections, rather than individual chapters, making it difficult to locate a chapter by browsing. It is also a pity that the applications of fluorinated compounds are so cursorily dealt with in the final chapters. For example there is barely one page of text dealing with agrochemicals, which is an area where fluorine has had a great impact.

However, there is no doubt that this is an excellent book, and that considering its length and coverage it is good value for money. It will make a valuable addition to the bookshelves, though at \$169 more probably to those of the library rather than the individual.

P. J. Crowley

Pesticides in the hydrologic system—pesticides in the atmosphere: Distribution, trends and governing factors. Michael S. Majewski & Paul D. Capel, Ann Arbor Press Inc., Chelsea, Michigan, 1995, 214 pp., price UK£36.95
ISBN 1-57504-004-2

This book is one from the series entitled '*Pesticides in the Hydrologic System*', a series which reviews and analyses current knowledge and understanding of pesticides in the water resources of the United States.

This particular volume, entitled '*Pesticides in the Atmosphere*', is a comprehensive review of most of the existing literature covering the occurrence and distribution of pesticides in the atmosphere of the US and adjoining Canadian Provinces. In undertaking the review, the authors have been particularly successful in the collation and subsequent analysis of the information available from numerous studies across a wide range of